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Measures of God Representations: Theoretical Framework and Critical Review

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Abstract

Over the past several decades, scholarly interest in God representations has grown steadily, but conceptual and measurement challenges have persisted. Consequently, in this paper, we build upon a dual-process conceptualization of God representations, which is organized along two dimensions: (a) doctrinal representations (i.e., affect-light, "head knowledge") vs. experiential representations (i.e., affect-laden, "heart knowledge") and (b) explicit (i.e., conscious) vs. implicit (i.e., nonconscious). We use this conceptualization to critically review 73 existing measures of God representations, which are grouped into four categories: (a) self-report measures (n = 55; e.g., God description measures, relationally focused measures, and functionally focused measures), (b) performance-based measures (n = 7; e.g., stimulus-attribution measures and constructive measures), (c) structured interview measures (n = 4), and (d) implicit measures (n = 7). We discuss the advantages and disadvantages of each type of measure and make recommendations regarding their use by researchers and practitioners. Finally, we make several suggestions for improving measurement in this field.

Keywords: God representations, measurement, scale, religion, spirituality

Measures of God Representations: Theoretical Framework and Critical Review

Scholarly interest in God representations (i.e., mental representations of a deity) has increased over the past few decades. For instance, a PyscINFO search conducted in July 2018 using the terms "God representation" OR "God concept" OR "God image" revealed the following trend of citations: 16 (1980s), 72 (1990s), 149 (2000s), and 192 (2010s). Despite this growing interest, much of the literature on God representations lacks conceptual precision (Davis, Moriarty & Mauch, 2013), and several measurement challenges persist, including (a) lack of demonstrated reliability and validity for many measures of God representations (even many commonly used ones), indicating a lack of theoretical and methodological rigor in the development and validation of many measures, (b) over-reliance on a self-report measurement modality, (c) under-emphasis on measuring implicit (compared to explicit) God representations, and (d) conflation of measuring doctrinal representations of God (affect-light; often referred to as "God concepts" or "head knowledge of God") and experiential representations of God (affect-laden; often referred to as "God images" or "heart knowledge of God"; Davis, Granqvist, & Sharp, 2018; Gibson, 2007; Zahl, Sharp & Gibson, 2013).

There has been a proliferation of God representation measures in the past few decades, but only seven early developed measures were reviewed in Hill and Hood's (1999) seminal text *Measures of Religiosity*, suggesting the need for an updated review of existing God representation measures. Consequently, in this paper, we critically review 73 measures of God representations that either have been peer-reviewed or have undergone some other type of expert review (e.g., by a dissertation committee). In our review, we build upon a dual-process conceptualization of God representations that differentiates between two types of God representations (doctrinal and experiential representations of God) and two levels of awareness

(explicit and implicit; Davis et al., 2013, 2018; Hall & Fujikawa, 2013; Zahl et al., 2013). We use this conceptualization to review God representation measures across four categories: self-report, performance-based, structured interview, and implicit measures. We conclude by offering recommendations for utilizing existing measures and for improving measurement options in this field.

A Dual-Process Conceptualization of God Representations

Prior theorizing has postulated there are two main types of God representations, which people may have in parallel and which may interact: doctrinal representations of God and experiential representations of God (Davis et al., 2013, 2018; Rizzuto, 1979; Zahl et al., 2013). *Doctrinal representations of God* refer to the mental representations underlying how people conceptually or theologically view God. These representations include beliefs comprising one's doctrinal understanding of God (e.g., God's ontological nature and traits), as well as one's theologically informed understanding of how God feels, thinks about, and behaves towards humans. These representations guide and integrate various aspects of how a person thinks and talks about God at an abstract and conceptual level. These cognitively oriented (i.e., affect-light) mental representations are processed primarily by semantic memory (Davis et al., 2013, 2018).

In contrast, *experiential representations of God* refer to the mental representations underlying how people relate personally and emotionally with God. These representations include the internal working models that "underlie one's embodied, emotional experience in perceived relationship with God…. [and that] guide and integrate how a person experiences and relates to God at an emotional, physiological, largely nonverbal… level" (Davis et al., 2018, p. 4). These affect-laden mental representations are processed primarily by procedural and episodic memory, especially generalized event representations (Davis et al., 2013, 2018).

Also, building on dual-process theories of social cognition, God representations can either be explicit or implicit (Davis et al., 2013; Hall & Fujikawa, 2013; Zahl et al., 2013). That is, at any moment, people may have some doctrinal and experiential representations of God about which they are conscious (explicit representations) and some doctrinal and experiential representations of God about which they are not conscious (implicit representations). People's explicit doctrinal and experiential representations are accessible to their conscious awareness at most any given moment, whereas their implicit doctrinal and experiential representations can influence their experiences, thoughts, and behaviors but are either permanently inaccessible to their conscious awareness (i.e., unconscious) or potentially accessible to their conscious awareness under certain conditions (i.e., preconscious; Davis et al., 2013, 2018; Hall & Fujikawa, 2013; Proctor, Miner, McLean, Devenish, & Bonab, 2009; Zahl et al., 2013). This conceptualization is based on extensive research supporting dual-process theories (Carlston, 2010; Sherman, Gawronski, & Trope, 2014) and results in four subtypes of God representations: explicit doctrinal, explicit experiential, implicit doctrinal, and implicit experiential.

As Davis et al. (2013, 2018) have noted, the distinctions among these four subtypes of God representations are not always clear-cut. Whereas doctrinal and experiential representations of God represent two modes of religious cognition, those modes likely operate simultaneously (e.g., in parallel) and interactively with each other (see Zahl et al., 2013). Moreover, people's implicit and explicit God representations can influence each other. For example, for good or ill, people's implicit experiences in their human relationships might lead to changes in their implicit experiences of God, which in turn might lead to changes in their explicit experiential and doctrinal representations of God (Davis et al., 2018; Van Tongeren et al., 2018). Although we have highlighted the predominant features and processes associated with each of these four

subtypes of God representations, these features and processes may influence and overlap with one another.

Although these four subtypes of God representations are not always neatly separable, distinctions among explicit and implicit doctrinal and experiential representations are important for researchers and practitioners to consider. Across the globe, most people identify as religious (Pew Research Center, 2012), and for religious believers, how they view and relate to God is often centrally related to their spiritual and psychological functioning, health, and well-being (Davis et al., 2018; Granqvist & Kirkpatrick, 2016; Hall & Fujikawa, 2013; Pargament, 2007). People commonly experience discrepancies or "incongruence" between their doctrinal and experiential God representations—for example, they may intellectually "know" God is a certain way (doctrinal representations) but they might tend to experience God emotionally in a very different way (experiential representations; Davis et al., 2018; Zahl et al., 2013). To illustrate, at a doctrinal or theological level, someone might "believe" God is loving, but they may usually "experience" God emotionally as cruel. Likewise, at a conscious level, someone may typically experience God as loving, but at a nonconscious level, they may usually experience God as distant. Some have argued a lack of congruence between different types of God representations may be one indicator of an "unhealthy" theistic relational spirituality (Davis et al., 2018), given theoretical and empirical work suggesting a healthy spirituality is marked by "the degree to which the various spiritual ingredients work together in synchrony" (Pargament, 2013, p. 267).

It would be helpful for practitioners (e.g., mental health professionals and spiritual directors) to be able to measure these nuanced features of people's religion/spirituality more precisely, so they can use that information to inform how they understand and intervene with the people they serve. In the same way, it would be useful for researchers to be able to measure

these features with more precision, so they can explore people's religion/spirituality with greater richness and test more precise hypotheses, such as how people's religious beliefs, emotions, and behaviors interact reciprocally with one another, often at different levels of awareness (Davis et al., 2018; Hall & Fujikawa, 2013; Wilt, Exline, Lindberg, Park, & Pargament, 2017). If researchers can test predictions more precisely, it may also help disentangle puzzling questions, such as why divergent findings often emerge when using self-report versus non-self-report measures to assess how people's God representations are related to their health and well-being (Granqvist & Kirkpatrick, 2016; Hall & Fujikawa, 2013; cf. Mikulincer & Shaver, 2017).

Critical Review of Existing Measures of God Representations

Next, we use this dual-process conceptualization to critically review 73 existing God representation measures. These measures are grouped into four methodological categories: self-report, performance-based, structured interview, and implicit measures. In what follows, we review each category of measures, offering conclusions and recommendations for each.

To identify existing measures of God representations, we conducted a literature search in July, 2018, using the PsycINFO, PsycARTICLES, PsycTESTS, PsycEXTRA, and Psychology and Behavioural Sciences computer databases. We searched these databases for scholarly publications and presentations that reported on the development, validation, or utilization of the four types of measures. We conducted searches using combinations of terms such as "spirituality," "religion," "God representation," "God concept," "God image," "scale," "measure," and "test." To identify additional measures, we reviewed the text and references sections of seminal works on God representations and on measurement in the psychology of religion/spirituality field (Abu-Raiya & Hill, 2014; Gibson, 2007; Hall & Fujikawa, 2013; Hill, 2013; Hill & Edwards, 2013; Hill & Hood, 1999; Kapuscinski & Masters, 2010; Zahl et al.,

2013). We only included measures that (a) addressed *how* people conceptually view and/or experientially relate with God (rather than simply *whether* they believe in God), (b) addressed participants' God representations as a primary feature of the measure (rather than as an incidental feature), and (c) had undergone expert review. In some cases, we have addressed the psychometric lineage of certain measures; however, for space reasons, we have only done so either when (a) further validation is an explicitly stated aim of the follow-up paper(s) or (b) the measure is one we have highlighted as being "highly recommended" (i.e., those measures which have demonstrated the most reliability and validity in a particular methodological category).

Ultimately, we identified 55 self-report, 7 performance-based, 4 interview, and 7 implicit measures that met this review's inclusion criteria. We used Hunsley and Mash's (2018) criteria (see Table 1) to rate each measure's reliability and validity evidence as "adequate," "good," or "excellent." We also added the category of "limited" given that several measures had reported reliability or validity that did not reach the requirements for an "adequate" rating. Tables 2, 3, 4, and 5 present the summary data for each reviewed measure, including the number of items, the type(s) of samples and religions with which it has been validated, and our team members' ratings of six types of reliability and validity evidence for that measure. For more in-depth descriptions of each measure (including sample items and number of citations), see the corresponding online supplemental material (Tables S1 to S4).

Self-Report Measures

Most measures of God representations are self-report measures. These measures can be grouped into three subcategories, based on their respective focus: God description measures (n = 11), relationally focused measures (n = 20), and functionally focused measures (n = 24).

God description measures. God description measures are self-report measures that list trait adjectives or descriptive statements and ask respondents to indicate how well each item describes God (see Table 2). These generally face-valid measures are widely used, perhaps largely because of their ease of administration, scoring, and interpretation. These scales vary widely in their content, which ranges from theory-driven personality traits (e.g., the "Big Five") to atheoretical empirically derived (e.g., factor analyzed) traits. They also vary widely in their length (i.e., from 10 to 300 items) and their level of reliability and validity evidence, with very few measures demonstrating at least good reliability and validity. A measure that demonstrates wide breadth (i.e., it includes both anthropomorphic and nonanthropomorphic subscales) and shows strong initial psychometric properties is the LAMBI scale ("limitless," "authoritarian," "mystical," "benevolent," and "ineffable"; Johnson, Okun, Cohen, Sharp, & Hook, 2018).

It is notable that, because of the instructions used in these God description measures (which range from using no doctrinal or experiential language to using language that specifically targets experiential representations), several of these scales may conflate the measurement of doctrinal and experiential representations of God. To date, Zahl and Gibson's (2012) Doctrinal/Experiential God Adjective Scale (DEGAS) is the only God description measure that distinctively assesses both explicit doctrinal and explicit experiential representations of God. On the DEGAS, respondents first indicate how descriptive each adjective is of what they "should believe that God is like" (explicit doctrinal representations) and then of what they "personally feel that God is like" (explicit experiential representations). Hence, the DEGAS is able to measure *doctrinal–experiential congruence* (the degree of alignment between one's doctrinal and experiential representations), which scholars have hypothesized may be an important marker and mechanism of healthy theistic relational spirituality (Davis et al., 2018; Zahl et al., 2013; cf.

Pargament, 2007). Importantly, in the DEGAS, the distinction between doctrinal and experiential representations is due to the *instructions* used rather than to the types of adjectives used, which makes its methodology easy to adapt for use with other measures.

Because God description measures tend to be quite straightforward, they are one of the most well-utilized and commonly cited groups of measures. However, because many of these measures conflate doctrinal and experiential representations, it is often unclear whether their yielded scores reflect doctrinal or experiential representations, or a mixture of both. Adding more nuanced instructions (similar to those of the DEGAS) would permit the calculation of scores that differentiate between respondents' theological understanding (doctrinal) and personal experience (experiential) of God, as well as scores indicating doctrinal–experiential congruence. Using this instructional format would improve the extent to which these measures could assess different types of God representations, but it would require respondents to rate adjectives/statements twice, which might become somewhat tedious on lengthier scales.

Relationally focused measures. Relationally focused measures are self-report measures that assess particular aspects of people's perceived relationship with God (see Table 3). These scales can be further categorized into (a) multidimensional relationally focused scales (n = 3; which assess a broad array of facets of people's perceived relationship with God, from an object relations or relational spirituality perspective), (b) emotions and attitudes towards God scales (n = 5), (c) closeness to God scales (n = 4; which assess people's perceived intimacy in their relationship with God), (d) attachment to God scales (n = 6; which assess people's perceived relationship with God from an attachment perspective), and (e) scales for use with non-Christians (n = 2; which target the assessment of specific aspects of Jewish and Muslim relational spirituality).

These relationally focused measures assess primarily explicit experiential representations of God. However, some of them contain items that can be answered or interpreted through a more doctrinally focused lens. For example, the Trust/Mistrust in God Scale (Rosmarin, Pargament, & Mahoney, 2009; Rosmarin, Pirutinsky, & Pargament, 2011) contains items such as "There are other patterns at work in the world aside from God," which respondents may answer more in terms of their doctrinal beliefs *about* God rather than their relational experience *of* God. Thus, researchers should use caution when interpreting scales that contain potentially doctrinally focused (rather than relationally focused) items.

Of the relationally focused measures, we recommend two in particular that have demonstrated strong reliability and validity evidence. The Religious and Spiritual Struggles Scale (RSSS; Exline, Pargament, Grubbs, & Yali, 2014) is the present culmination of a lineage of previous scales which include questions about religious and spiritual (R/S) struggle (e.g., the Religious Comfort and Strain Scale [Exline, Yali, & Sanderson, 2000]; the RCOPE [Pargament, Koenig, & Perez, 2000]; and the Brief RCOPE [Pargament, Feuille, & Burdzy, 2011]), and recent longitudinal research using the RSSS (Van Tongeren et al., 2018) has found evidence that R/S struggles predict changes over time in how people view and experience God, pointing to its empirical and clinical usefulness as a measure. Additionally, the Spiritual Well-Being Scale (Palouzian & Ellison, 1982) is the most-cited of the relational measures, has undergone subsequent validity testing (e.g., Ellison, 1983), and has been identified as being particularly useful in clinical settings (Bufford, Paloutzian & Ellison, 1991).

Functionally focused measures. Functionally focused measures are self-report measures that assess the different roles and functions of God in people's lives (see Table 4). These measures can be further categorized into (a) measures of religious coping (n = 9; which assess

how people perceive God and other supernatural agents such as demons as being involved in their coping with problems), (b) measures of God's involvement (n = 10; which assess how people perceive God as being involved in life events), and (c) measures of God's support (n = 5; which assess how much people perceive God as providing religious or emotional support in their lives).

Functionally focused measures vary in their emphases but generally evaluate how respondents view or experience God functioning in their lives. These measures enable researchers and practitioners to assess not only the *content* of people's God representations but also the *function* of those representations in people's efforts to navigate life. Functionally focused measures assess various combinations of explicit doctrinal and experiential representations of God, but most focus on measuring explicit experiential representations.

The functionally focused measures that we recommend most highly based on their reliability and validity evidence are the Brief RCOPE (Pargament et al., 2011) and the Religious Support Scale (RSS; Fiala, Bjorck, & Gorsuch, 2002). The 14-item Brief RCOPE measures positive and negative religious coping, and is a simplified version of the RCOPE, which is the most-cited functionally focused measure of God representations. The RSS scale measures perceived support from God, religious peers, and religious leaders, and has proven to be adaptable to other faith groups (Multi-Faith Religious Support Scale; Bjorck & Maslim, 2011) and other age groups (Multi-Faith Religious Support Scale–Adolescent; Bjorck, Kim, Cunha, & Braese, 2017). It is notable that these (and many of the other) functionally focused measures assess functions (e.g., religious coping methods, beliefs about suffering) that can generally be viewed as proxies for one's God representations. For instance, benevolent God representations underlie the use of positive religious coping methods, whereas nonbenevolent (e.g., cruel or

distant) God representations underlie the use of negative religious coping methods (Pargament et al., 2011).

Overview of Self-Report Measures. Self-report measures of God representations assess an admirable array of content areas, ranging from how people view and relate with God to how God functions in their lives. These measures have several advantages. For example, they tend to be relatively short and relatively easy to administer, score, and analyze, and they usually target distinctly identifiable aspects of God representations. In addition, many of these measures demonstrate good or even excellent levels of reliability and validity, particularly when it comes to their internal consistency and construct validity. Because of these advantages, self-report measures of God representations can be a useful category of measures for both researchers and practitioners to use.

However, these measures also have numerous limitations. For instance, the majority of these measures have only been validated with student or community samples, which thereby limits their generalizability to clinical populations. Additionally, many of these measures have not been independently validated by multiple research teams or in multiple contexts. Furthermore, the majority of the measures demonstrate no to adequate content validity evidence, suggesting that most self-report measures of God representations lack a solid theoretical or conceptual foundation. Even when test developers have offered a theoretical or conceptual foundation for their developed self-report measure, they often have provided little or no information about how the particular items were developed and evaluated (e.g., by expert judges). Finally, because of their modality, self-report measures may often miss some of the richness, context, and nuance of people's spirituality—information that might be better gleaned by using interview or performance-based measures (Moriarty & Davis, 2012; Zahl et al., 2013).

Performance-Based Measures

There are two main types of performance-based measures (historically called *projective measures*) of God representations: stimulus-attribution and constructive measures. *Stimulus-attribution measures* require respondents to attribute meaning to an ambiguous stimulus (e.g., picture or photo), and *constructive measures* ask respondents to create something novel (e.g., a drawing or written description) within defined parameters (cf. Bornstein, 2007). Typically, performance-based measures of God representations have been developed and interpreted from a psychodynamic or object relations framework. These measures produce an array of responses that can be analyzed in a wide variety of ways, depending on the researcher's or practitioner's goals. For instance, these measures can often yield both visual and textual data, which can helpfully complement and contextualize the numerical data obtained through self-report measures. We have identified seven performance-based measures of God representations, which provide diverse and creative ways to assess respondents' representations of God (see Table 5).

One advantage of these measures is that they often can provide a richer and more comprehensive, personalized, nuanced, and contextualized window into people's life histories and how they view and relate with God, relative to what is possible through self-report measures alone (Moriarty & Davis, 2012; Zahl et al., 2013). Moreover, compared to self-report measures, respondents tend to enjoy these measures more and feel more engaged with the material and with the practitioner or researcher. Thus, these performance-based measures can help to build the therapeutic alliance between the respondent and the practitioner, can help the respondent feel heard and validated, and can help to elucidate some of the complexities and underlying dynamics that are difficult to illuminate solely through someone's responses on self-report measures.

However, one tradeoff for collecting this rich data is that several performance-based measures are lengthy to administer and interpret (often involving from 1 to 2 hrs). Furthermore, the main drawback of these measures is that they have generally not demonstrated much evidence of reliability or validity. The Apperception Test God Representations (Stulp, Koelen, Glas, & Eurelings-Bontekoe, 2018) is currently the most thoroughly validated performance-based measure; however, even this measure only demonstrates adequate evidence of reliability and validity. Hence, each of these performance-based measures of God representations should be used with some caution and should be interpreted in a two-step process, with "the first step [involving] generating hypotheses about the implications of the test data…. [and] the second step [involving] gauging the validity of these hypotheses in light of information available from other test findings and from the background and case history of the person being examined" (Weiner & Greene, 2017, pp. 417-418). For these reasons, this group of measures is much more likely to be useful in clinical contexts rather than research contexts.

Structured Interview Measures

There are four structured interview measures of God representations (see Table 5). Each one is based on an attachment theory framework and consists of open-ended questions about respondents' religion/spirituality and relational history, with a focus on their past and present experiences in perceived relationship with God. As such, these interviews primarily assess respondents' implicit and explicit experiential representations of God, even though they secondarily assess their implicit and explicit doctrinal representations of God. For each one, verbatim answers are scored using a coding system.

Interview measures have many of the same advantages and drawbacks as performance-based measures. Again, they can address the well-documented validity concerns associated with

self-report measures of God representations (e.g., their susceptibility to socially desirable and other response biases; lack of rich and nuanced life history data; for reviews, see Gibson, 2007; Granqvist & Kirkpatrick, 2016; Hall & Fujikawa, 2013; Moriarty & Davis, 2012; Stulp et al., 2018; Zahl et al., 2013). They also can help triangulate and contextualize the data obtained from self-report and performance-based measures (Moriarty & Davis, 2012). The main disadvantage of these measures is, depending on the length and specificity of the interview, they may require extensive training to learn how to correctly administer the interview and code transcripts, and they may require a great deal of time to administer and score. Additionally none of the published interview measures have yet demonstrated good reliability and validity evidence. Thus, at present we recommend these measures be used only with caution, and again, they are currently more useful for practitioners than researchers. Nevertheless, we recommend the Religious Attachment Inventory (RAI; Granquist & Main, 2017; Nkara, Main, Hesse, & Granqvist, 2017) most highly, given the robust and voluminous empirical basis of the Adult Attachment Inventory (and its scoring and classification system; Hesse, 2016), upon which the RAI has been developed and preliminarily validated.

Implicit Measures

Thus far, we have mostly reviewed measures that primarily assess explicit God representations, yet another measurement strategy involves the use of implicit measures of God representations. These measures assess people's automatic responses to God-related stimuli instead of assessing their reasoned responses to such stimuli (Gawronski & de Houwer, 2014; for a review of indirect and implicit measures of religion/spirituality more generally, see Jong, Zahl, & Sharp, 2017). The benefit of using these measures is they can tell us about people's implicit beliefs about God (which are often unconscious), which might differ from what people openly

express on explicit measures. Although only a few implicit measures of God representations have been validated and published, researchers have begun to adapt various reaction-time measurement techniques for use in assessing God representations (see Table 5). For each of these reaction-time measures, the speed with which respondents react to presented stimuli is thought to indicate the strength of that respondent's mental association between the stimulus and the categorization they have made.

Property verification measures involve respondents categorizing stimuli using two options (e.g., *yes/no*). The way respondents categorize the stimuli reflects their explicit (conscious) beliefs, whereas the speed with which they do so reflects the implicit (nonconscious) strength of these beliefs (Jong et al., 2017). Researchers have adapted property verification tasks to target particular research questions, such as exploring group differences in people's God representations (e.g., religious vs. nonreligious persons [Gibson, 2006]).

Researchers have also adapted implicit association tests (IATs), which use reaction times to investigate the strength of people's mental associations with two contrasting targets (e.g., *male/female, logical/illogical*), to explore people's God representations. The "classic" IAT can be difficult to apply to God representations, as it requires a contrasting target (e.g. *God/Devil;* Meier, Hauser, Robinson, Friesen, & Schjeldahl, 2007); however, the Single-Target IAT is more easily applicable. Like the IAT, it measures the relative association of "God" with contrasting evaluations (e.g., *good/bad*); however, it does not require a contrasting target for "God".

Similar to the IAT, the Go/No-Go Association Task (GNAT) pairs categories of words. The most well-validated implicit measure of God representations to date, the Positive/Negative God Go/No-Go Association Task (PNG-GNAT; Pirutinsky, Carp, & Rosmarin, 2016) uses the categories of God, positive, and negative. Two of these categories appear at the top of the screen

at any given time, and stimuli words appear at the center of the screen. Respondents are instructed to press the space bar when a word belongs to one of the categories and refrain from doing anything when a word does not, and the task yields two outcome measures: one based on error rates, and one based on response time.

In sum, implicit measures target people's automatic responses to God-referent material. Although there is still some question about how much they actually bypass biases associated with the use of self-report measures (e.g., conscious social desirability bias and "faking" responses; Gawronski & de Houwer, 2014; Steffens, 2004), they are one of the best options available for gathering information about people's implicit representations of God in a standardized way. Moreover, implicit measures of God representations can help evaluate the validity evidence for other types of God representation measures (e.g., self-report, performance-based, and interview measures). At the same time, implicit measures have several disadvantages, including: (a) their administration requires a computer with programmed software, (b) the statistical analysis of the data is more complex than more traditional self-report measures, (c) their interpretation is less straightforward than that of traditional self-report measures, (d) there is debate in the wider field about what underlying psychological features these measures actually tap into (Gawronski & de Houwer, 2014) as well as what the standards for reliability and validity should be (for example, IAT measures typically show adequate to good levels of internal consistency, but lower test-retest reliability; Nosek, Greenwald, & Banaji, 2007), and (e) they may work better at the aggregate level than as a way to assess a particular person's implicit God representations. Also, as of yet, these measures are unable to distinguish between doctrinal and experiential representations, and they have not yet been used to make any

clinical inferences. Thus, we recommend that, unlike performance-based and interview measures, implicit measures are more useful for researchers than practitioners.

Because interpretation of data from implicit measures is not straightforward and there are so few validated implicit measures, we recommend using implicit measures to supplement (rather than replace) the use of self-report, performance-based, and interview measures. We also recommend the use of implicit measures when there is theoretically driven reason to hypothesize that the indirect measurement of God representations may yield different or even opposite results from what direct measures might indicate. For instance, individuals with an insecure-dismissing attachment to God might exhibit authoritarian God representations on implicit measures but report having benevolent God representations on self-report measures (Hall & Fujikawa, 2013).

Discussion

Although research on God representations has been conducted for several decades, measurement issues still plague this area (Zahl et al., 2013). These issues cannot be resolved without deeper consideration of fundamental theoretical questions about the structure, content, and dynamics of God representations. In the introduction to this review we mentioned several measurement challenges that persist in the God representations literature. First, there is a general lack of demonstrated reliability and validity for many measures of God representations, which indicates a lack of theoretical and methodological rigor in the development and validation of many measures. This does not mean that these measures are necessarily flawed, but it does suggest that researchers and practitioners alike should be cautious when drawing conclusions from many (if not most) of these scales. It also provides a compass for future research in indicating which measures may need further development and validation.

Second, we indicated that there was an over-reliance on a self-report measurement modality. There are meaningful and observable differences between the different categories of measures presented in this review. The self-report measures, including God description ratings, relationally focused measures, and functionally focused measures, are by far the most prevalent kind of measure, and they tend to have more quantifiable indications of reliability and validity (although many of them have not yet demonstrated many of the different types of reliability and validity covered in this review). However, they are subject to the kinds of biases inherent in self-report measures (e.g., socially desirable responding, ceiling/floor effects), and can only measure explicit God representations. In contrast, there is less reliability and validity evidence for the performance-based, structured interview, and implicit measures, but they are arguably less susceptible to the limitations of self-report measures, and performance-based and structured interview measures are likely better able to capture the rich, nuanced, and contextualized content and dynamics of people's God representations, including implicit representations.

Relatedly, third, there is an under-emphasis on measuring implicit (compared to explicit) God representations. Self-report methodology primarily focuses on explicit representations, and the majority of measures that might address implicit representations (performance-based, structured interview, and implicit measures) have not been well validated. Finally, there is often a conflation of measuring experiential and doctrinal representations of God; most measures of God representations have not been developed with this conceptual distinction in mind, and are therefore limited in their ability to measure these important facets of people's religious/spiritual lives.

Recommendations

With these measurement challenges in mind, we make several suggestions for researchers and practitioners in developing and using God representation measures. The current review can serve as a guide for understanding what each measure assesses, what its reliability and validity evidence is, and for whom has it been validated. This last point may prove to be particularly important when choosing measures (for example, if working with a clinical population, a practitioner may want to avoid measures which have only been validated with student populations). It can also serve as a guide for developers of future God representation measures, so that such measures are developed, constructed, and validated with conceptual and methodological precision. Furthermore, we hope that by categorizing these existing God representation measures in terms of self-report, performance-based, interview, and implicit, we will have created a resource for people to determine which measures they want to use, and what the "gaps" are in terms of what kinds of measures still need to be developed and validated.

Before using particular God representation measures, researchers and practitioners should take into account which kind of God representation (i.e., explicit or implicit, doctrinal or experiential) they wish to assess. In their description and instructions, existing measures usually do not specify that they target a particular type of God representation, yet they often do so in actual practice, based on various aspects of how the measure was developed, constructed, and validated. Our overarching recommendations for researchers and practitioners interested in assessing God representations are to (a) take a theory-driven approach to selecting measures and (b) use multiple methods of measurement. By taking a theory-driven approach, researchers and practitioners can more specifically target the type of God representation or relationship between God representations they are interested in measuring (e.g., explicit doctrinal-experiential

congruence, for which the DEGAS would be particularly useful). As an important note of caution, because these reviewed measures arise from diverse literature bases, theoretical foundations, and cultural traditions, researchers and practitioners should ensure the measures they select are appropriate for use with their intended respondents and for examining their particular research questions.

Moreover, using a multimethod approach to measurement is ideal because the strengths of one type of measure can offset the weaknesses of another type, and vice versa (Gibson, 2007; Moriarty & Davis, 2012). For example, a researcher might utilize an adjective checklist (which has high face validity and is cost effective to score and interpret but is susceptible to socially desirable responding) and an implicit measure (which is less susceptible to socially desirable responding but is time-intensive to run and analyze and is more difficult to interpret). A practitioner, on the other hand, might utilize a self-report scale (which may have good evidence of reliability and validity but be susceptible to socially desirable responding and ceiling/floor effects) and a performance-based measure (which may engage clients' emotions, interest, and reflectiveness but will require subjective interpretation). Using multiple methods can help researchers and practitioners gain a more comprehensive and nuanced picture of people's God representations by allowing the assessment of multiple dimensions and levels of respondents' religious/spiritual beliefs and experiences, as well as concurrently affording the opportunity to triangulate the validity of one's scientific or clinical findings (cf. Weiner & Greene, 2017).

As an example of this multimethod approach, Sharp, Rentfrow, and Gibson (2017) recently triangulated across self-report and implicit measures of God representations in order to show that Christians mentally represent the Trinity in complex ways across implicit, explicit, doctrinal, and experiential representations. Using multiple methods enabled them to explicate

their findings more precisely, finding that representations of God the Father had the most explicit negative content (e.g., *harsh*), but that people were slower to endorse negative (vs. positive or supernatural) descriptive words, suggesting that although negative content was more descriptive of God the Father than of other Trinity members, it was still less salient in people's minds than positive and supernatural content. Similarly, using a multimethod approach from a clinical perspective, Olson et al. (2016) conducted group-based spiritual intervention designed to improve people's God representations, attachment to God, and narrative identity, assessing changes in God representations through self-report and performance-based measures, as well as expressive-writing exercises (e.g., journal entries) and unstructured debriefing interviews. A multimethod assessment approach holds promise in outcome studies of interventions that target treating people's God representations, because it permits the assessment of outcomes at multiple levels of clients' awareness (e.g., explicit and implicit; Moriarty & Davis, 2012; Hall & Fujikawa, 2013).

Limitations and Future Directions

As indicated previously, there are several "holes" in the literature regarding the reliability and validity of extant measures, particularly within the performance-based, structured interview, and implicit measures categories. We suggest that future research focus on addressing these gaps where possible, either through the development of new, psychometrically sound measures, or through rigorous reliability and validity investigation of existing measures.

Also of concern, the vast majority of God representation measures have been developed in Western, English-speaking, primarily Christian contexts. Many existing God representation assessments use language that may be inappropriate for respondents outside the Christian faith tradition. For individuals who do not identify with a Christian tradition, researchers and

practitioners may want to adapt the measure's language (e.g., using "the sacred" or "Allah" rather than "God"), as other researchers have done (e.g., Bjorck & Maslim, 2011). However, such adaptations should be done with the utmost care, as some measures developed in a Christian context might not be readily adaptable to other religions' understandings of God. They may include ways of thinking about God that are irrelevant to those populations and/or miss out on especially pertinent aspects of those populations' faith. As an example, the Trust-in-God Questionnaire (Fadardi & Azadi, 2017) used sample verses from the Quran in order to develop questions from an Islamic viewpoint, a perspective that would be missed if adapting pre-existing scales developed for Christians. There is a need for God representation measures that are broadly applicable and validated for use within a wide variety of religious/spiritual populations (e.g., the Multi-Faith Religious Support Scale; Bjorck & Maslim, 2011), as well as measures that are uniquely tailored for use with members of a specific faith tradition (e.g., the Muslim Experiential Religiousness Scale [Ghorbani, Watson, Geranmayepour, & Chen, 2014]; Hill & Edwards, 2013).

Moreover, most of these measures have not yet demonstrated adequate or better *construct equivalence*, which refers to "the degree to which a construct measured by a test in one cultural or linguistic group is comparable to the construct measured by the same test in a different cultural or linguistic group" (AERA, 2017). Therefore, there is a need for considerable validation research designed to demonstrate tests' construct equivalence across different cultural groups (e.g., people of different ages, races/ethnicities, nationalities, and faith and denominational traditions). Some researchers have begun to do this with certain measures reviewed in this paper (e.g., the Korean Attachment to God Inventory [Kim et al., 2017] and the

Adolescent Religious Coping Questionnaire [ARCOPE; Talik, 2013]), but much more work is needed before most existing measures can be used across cultural groups with confidence.

Finally, although we have suggested the four subtypes of God representations presented in this review as being particularly useful for researchers and practitioners, we have no doubt that there are other ways of thinking about God not included in this typology that would be equally pertinent. For example, the measures reviewed here usually assume an overarching monotheistic representation of God, and we are not aware of any extant measures of polytheistic God representations. We argue that future researchers may want to consider whether we need to expand not only our archive of God representation measures, but also the types themselves.

Conclusion

Although our knowledge of the assessment of God representations is continually being expanded and refined, the measures we have reviewed here provide a useful catalogue of methodological tools for researchers and practitioners to utilize. Moreover, although there are many measures of God representations that have already been developed, there is still work to be done, both in further validating those scales as well as in developing new, theoretically and psychometrically sound measures. We hope the selective application and further development of these measures will enhance researchers' ability to develop and test empirical research questions and practitioners' ability to treat clients in spiritual and emotional distress.

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Table 1

Hunsley and Mash (2018, pp. 8-9) Criteria for Rating the Overall Reliability and Validity Evidence of Reviewed Measures

Type of reliability or validity	Level of evidence		
	Adequate	Good	Excellent
Internal consistency	Preponderance of evidence indicates α values of .70–.79	Preponderance of evidence indicates α values of .80–.89	Preponderance of evidence indicates α values of ≥ .90
Inter-rater reliability	Preponderance of evidence indicates K values of .60–.74;… Pearson correlation or intraclass correlation values of .70–.79	Preponderance of evidence indicates K values of .75–.84;… Pearson correlation or intraclass correlation values of .80–.89	Preponderance of evidence indicates K values of ≥ .85;… Pearson correlation or intraclass correlation values of ≥ .90
Test-retest reliability	Preponderance of evidence indicates test-retest correlations of at least .70 over a period of several days to several weeks	Preponderance of evidence indicates test-retest correlations of at least .70 over a period of several months	Preponderance of evidence indicates test-retest correlations of at least .70 over a period of a year or longer
Content validity	The test developers clearly defined the domain of the construct being assessed and ensured that the selected items were representative of the entire set of facets included in the domain	In addition to the criteria used for an *adequate* rating, all elements of the instrument (e.g., instructions and items) were evaluated by judges (e.g., by experts or by pilot research participants)	In addition to the criteria used for a *good* rating, multiple groups of judges were employed and quantitative ratings were used by the judges
Construct validity	Some independently replicated evidence of construct validity (e.g., predictive validity, concurrent validity, and convergent and discriminant validity)	Preponderance of independently replicated evidence, across multiple types of validity (e.g., predictive, concurrent, convergent, and discriminant validity) is indicative of construct validity	In addition to the criteria used for a *good* rating, there is evidence of incremental validity with respect to other… data
Validity generalization	Some evidence supports the use of this instrument with either (a) more than one specific group (based on sociodemographic characteristics…) or (b) in multiple contexts…	Preponderance of evidence supports the use of this instrument with either (a) more than one specific group (based on sociodemographic characteristics…) or (b) in multiple settings…	Preponderance of evidence supports the use of this instrument with (a) more than one specific group (based on sociodemographic characteristics…) *and* (b) across multiple contexts…

Table 2

Self-Report Measures of God Representations: God Description Measures (n = 11)

Measure	Subtype	Items	Validation sample(s)	Validation religion	Internal consistency evidence	Inter-rater reliability evidence	Test-retest reliability evidence	Content validity evidence	Construct validity evidence	Validity generalization evidence
Adjective Ratings of God Scale (Gorsuch, 1968)	F	91	St	MR	L	--	--	Ad	Gd	Ad
Authoritarian/Benevolent God Scale (Johnson, Li, Cohen, & Okun, 2013; Johnson, Okun, & Cohen, 2015)	C	18	St, Cm	Ch	Gd	--	--	Ad	Gd	Ad
Concepts of God Scale (Spilka, Armatas, & Nussbaum, 1964)	F	64	St, Cm	Ch-C	Ad	--	--	Ex	L	Ad
Doctrinal/Experiential God Adjective Scale (Zahl & Gibson, 2012)	E	27	St	Ch	Add	--	--	Ad	Gd	--
God–10 (Exline, Grubbs, & Homolka, 2015)	F	10	St, Cm	Ch	Ad	--	--	Ad	Gd	Gd
God Adjective Check List (Piedmont, Williams, & Ciarrochi, 1997)	F	300	St	Ch	--	--	--	Gd	Ad	--
God-Complexity Task (Sharp, 2012)	F	51	St, Cm	Ch	--	--	--	Ad	L	--
God Questionnaire (Froese & Bader, 2008)	F	15	Cm	MR-NR	Gd	--	--	L	Ad	L
Limitless, Authoritarian, Mystical, Benevolent, and Ineffable God Scale (LAMBI; Johnson et al., 2018)	C	25	St, Cm	MR-NR	Gd	--	L	Ad	Ex	--
Loving and Controlling God Scales (Benson & Spilka, 1973)	F	10	St	Ch	Ad	--	--	Ad	Gd	--
Views of God Scale (Shariff & Norenzayan, 2011)	F	14	St	MR-NR	Ex	--	--	Ad	Ad	L

Note. A = explicit doctrinal representations of God; B = implicit doctrinal representations of God; C = explicit experiential representations of God; D = implicit experiential representations of God; E = doctrinal-experiential congruence; F = unclear whether measures doctrinal or experiential; G = unclear whether measures implicit doctrinal or experiential; All = because of the nature of the measure, could be used to measure any combination of God representations; (L) = Long form; (S) = Short form; St = student sample; Cm = community sample; Cl = clinical sample; Ch = Christian (mixed or unspecified denominations); Ch-C = Catholic Christian; Ch-P = Protestant Christian; J = Jewish; M = Muslim; MR= Mixed Religious; MR-NR = Mixed Religious-Nonreligious; -- = not provided; L = limited evidence provided but not yet adequate; Ad = adequate evidence; Gd = good; Ex = excellent.

Table 3

Self-Report Measures of God Representations: Relationally Focused Measures (n = 20)

Measure	Subtype	Items	Validation sample(s)	Validation religion	Internal consistency evidence	Inter-rater reliability evidence	Test-retest reliability evidence	Content validity evidence	Construct validity evidence	Validity generalization evidence
Multidimensional relationally focused scales (*n* = 3)										
God Image Inventory and God Image Scales (Lawrence, 1997)	C	156 (L) 72 (S1) 36 (S2)	Cm	MR-NR	Ex	--	--	Ad	Ad	L
Spiritual Assessment Inventory (Hall & Edwards, 1996, 2002; Hall, Reise, & Haviland, 2007)	C	49	St	Ch-P	Gd	--	L	Ad	Ex	--
Spiritual Transformation Inventory (Hall, 2015; cf. Augustyn, Hall, Wang, & Hill, 2016)	C	155	St	Ch-P	Gd	--	--	Ad	Ad	L
Emotions and attitudes towards God scales (*n* = 5)										
Attitudes Toward God Scale–9 (Wood et al., 2010)	C	9	St, Cm	MR-NR	Gd	--	L	--	Gd	L
Concepts of God and Parental Images Scale (Vergote et al., 1969)	C	108	St	Ch-C	--	--	--	Gd	--	L
Questionnaire God Image (Schaap Jonker, Eurelings-Bonekoe, Jonker, & Zock, 2008; Schaap-Jonker, Egberink, Braam, & Corveleyn, 2016)	C	33 (L) 22 (S)	Cm, Cl	Ch	Gd	--	--	Ad	Ad	Ad
Religious Comfort and Strain Scale (Exline, Yali, & Sanderson, 2000)	C	20	St, Cl	MR-NR	L	--	--	--	Ad	Ad
Religious and Spiritual Struggles Scale (Exline et al., 2014)	C	26	St, Cm	MR-NR	Gd	--	--	Ad	Ex	Gd
Closeness to God scales (*n* = 4)										
Clergy Spiritual Well-Being Scale (Proeschold-Bell, Yang, Toth, Rivers, & Carder, 2014)	C	12	Cm	Ch	Ex	--	Ad	Ad	Gd	--
Connectedness With God Scale (Krause, 2002)	C	3	Cm	--	Ex	--	--	Gd	Ad	L
Self/Other Overlap with God (Hodges, Sharp, Gibson, & Tipsord, 2013)	C	1	St, Cm	MR-NR	--	--	L	Ad	Gd	Ad
Spiritual Well-Being Scale (Bufford, Paloutzian, & Ellison, 1991; Ellison, 1983; Ellison, 2006; Palouzian & Ellison, 1982)	C	20	St, Cm, Cl	MR-NR	Gd	--	Gd	Gd	Ad	Ex

Measure	Subtype	Items	Validation sample(s)	Validation religion	Internal consistency evidence	Inter-rater reliability evidence	Test-retest reliability evidence	Content validity evidence	Construct validity evidence	Validity generalization evidence
Attachment to God scales (*n* = 6)										
Attachment to God Inventory (Beck & McDonald, 2004)	C	28	St, Cm	Ch	Gd	--	--	Ad	Ad	Gd
Attachment to God Measure (Kirkpatrick & Shaver, 1992)	C	1	Cm	MR-NR	--	--	--	L	Ad	--
Attachment to God Scale [a] (Rowatt & Kirkpatrick, 2002)	C	9	St, Cm	Ch	Gd	--	--	Ad	Gd	--
Attachment to God Scale [b] (Sim & Loh, 2003)	C	16	St	MR	Ex	--	--	Ad	Ex	--
Attachment to God Scale [c] (Granqvist, Mikulincer, Gewirtz, & Shaver, 2012)	C	20	St	J	Gd	--	--	Ad	Ex	--
Korean Attachment to God Inventory (Kim, Kim, Blumberg, & Cho, 2017)	C	11	Cm	Ch	Gd	--	--	Ex	Gd	--
Scales for use with non-Christians (*n* = 2)										
Muslim Experiential Religiousness Scale (Ghorbani et al., 2014)	C	15	St	M	Gd	--	--	Ad	Ex	L
Trust/Mistrust in God Scale (Rosmarin, Pargament, & Mahoney, 2009; Rosmarin, Pirutinsky, & Pargament, 2011)	F	16 (L) 6 (S)	Cm	J	Gd	--	Gd	Ex	Gd	Gd

Note. A = explicit doctrinal representations of God; B = implicit doctrinal representations of God; C = explicit experiential representations of God; D = implicit experiential representations of God; E = doctrinal-experiential congruence; F = unclear whether measures doctrinal or experiential; G = unclear whether measures implicit doctrinal or experiential; All = because of the nature of the measure, could be used to measure any combination of God representations; (L) = Long form; (S) = Short form; St = student sample; Cm = community sample; Cl = clinical sample; Ch = Christian (mixed or unspecified denominations); Ch-C = Catholic Christian; Ch-P = Protestant Christian; J = Jewish; M = Muslim; MR= Mixed Religious; MR-NR = Mixed Religious-Nonreligious; -- = not provided; L = limited evidence provided but not yet adequate; Ad = adequate evidence; Gd = good; Ex = excellent.

Table 4

Self-Report Measures of God Representations: Functionally Focused Measures (n = 24)

Measure	Subtype	Items	Validation sample(s)	Validation religion	Internal consistency evidence	Inter-rater reliability evidence	Test-retest reliability evidence	Content validity evidence	Construct validity evidence	Validity generalization evidence
Measures of religious coping (n = 9)										
Adolescent Religious Coping Questionnaire (Talik, 2013)	C	105	St	Ch	Gd	--	--	Gd	Ad	--
Brief RCOPE (Pargament et al., 2011)	C	14	St, Cm, Cl	MR-NR	Gd	--	--	Gd	Ex	Ex
Psychological Measure of Islamic Religiousness (Raiya, Pargament, Mahoney, & Stein, 2008)	F	60	Cm	M	Gd	--	--	Gd	Ex	--
RCOPE (Pargament, Koenig, & Perez, 2000)	C	105	St, Cm, Cl	MR-NR	Gd	--	--	Ad	Ex	Ex
Religious Coping Activities Scale (Pargament et al., 1990)	C	29	Cm	Ch	--	--	--	--	--	--
Religious Problem-Solving Scale (Fox, Blanton, & Morris, 1998; Pargament et al., 1988)	C	36 (L) 18 (S)	Cm	Ch-P	Gd	--	Ad	Ad	Ad	Ad
Religious Self-Directing Scale (Phillips, Pargament, Lynn, & Crossley, 2004)	C	12	St	MR-NR	Gd	--	Ad	Gd	Ad	--
Surrender Scale (Wong-McDonald & Gorsuch, 2000)	C	12	St	Ch	Gd	--	--	Gd	Gd	--
Ways of Religious Coping Scale (Boudreaux, Catz, Ryan, Amaral-Melendez, & Brantley, 1995)	C	25	St	MR	Gd	--	--	Gd	Ad	--
Measures of God's involvement (n = 10)										
Alcohol-Related God Locus of Control Scale (T. S. Murray, Goggin, & Malcarne, 2006)	F	12	Cl	--	Gd	--	--	Ad	Ad	--
Belief in Divine Intervention Scale (Degelman & Lynn, 1995)	A	6	St	MR	Ex	--	L	Ad	Gd	L
Cancer and Deity Questionnaire (Bowman, Beitman, Palesh, Pérez, & Koopman, 2009)	C	12	Cl	MR-NR	Gd	--	Gd	Gd	Gd	L
God Locus of Control Scales (Welton, Adkins, Ingle, & Dixon, 1996)	F	18	St	Ch	Gd	--	L	Gd	Gd	L
God Locus of Health Control Scale (Wallston et al., 1999)	F	6	Cl	--	Ex	--	--	Ad	Ad	L
God Mediated Control Scale (Krause, 2010)	F	3	Cm	--	--	--	L	Ad	Ad	--
Inventory for Complicated Spiritual Grief (Burke et al., 2014; Burke & Neimeyer, 2016)	C	18	St, Cm	--	Ex	--	Ad	Ex	Ex	Ad

Measure	Subtype	Items	Validation sample(s)	Validation religion	Internal consistency evidence	Inter-rater reliability evidence	Test-retest reliability evidence	Content validity evidence	Construct validity evidence	Validity generalization evidence
Sexual Risk Behavior-Related God Locus of Control Scale for Adolescents (Goggin, Malcarne, Murray, Metcalf, & Wallston, 2007)	F	12	St	MR-NR	Ex	--	Ad	Ad	Gd	L
Trust-in-God Questionnaire (Fadardi & Azadi, 2017)	F	5	St	M	L	--	Ad	Gd	Ad	--
Views of Suffering Scale (Hale-Smith, Park, & Edmondson, 2012)	A	30	St	MR-NR	Gd	--	Ad	Ad	Gd	Ad
Measures of God's support (n = 5)										
God-Centered Self-Esteem Scale (Ho & Sim, 2013)	C	16	St	Ch-P	Gd	--	--	L	Ex	--
Multi-Faith Religious Support Scale (Bjorck & Maslim, 2011)	C	21	Cm	M	Gd	--	--	--	Gd	Ad
Multi-Faith Religious Support Scale – Adolescent (Bjorck et al., 2017)	C	21	St	Ch	Gd	--	--	Gd	Ad	Ad
Religious Support Scale (Fiala et al., 2002)	C	21	Cm	Ch-P	Gd	--	Gd	Gd	Gd	Ad
Spiritual History Scale–4 (Hays, Meador, Branch, & George, 2001)	C	23	Cm	MR-NR	Ad	--	Ex	Gd	Gd	Ad

Note. A = explicit doctrinal representations of God; B = implicit doctrinal representations of God; C = explicit experiential representations of God; D = implicit experiential representations of God; E = doctrinal-experiential congruence; F = unclear whether measures doctrinal or experiential; G = unclear whether measures implicit doctrinal or experiential; All = because of the nature of the measure, could be used to measure any combination of God representations; (L) = Long form; (S) = Short form; St = student sample; Cm = community sample; Cl = clinical sample; Ch = Christian (mixed or unspecified denominations); Ch-C = Catholic Christian; Ch-P = Protestant Christian; J = Jewish; M = Muslim; MR= Mixed Religious; MR-NR = Mixed Religious-Nonreligious; -- = not provided; L = limited evidence provided but not yet adequate; Ad = adequate evidence; Gd = good; Ex = excellent.

Table 5

Non-Self-Report Measures of God Representations: Performance-Based, Structured Interview, and Implicit Measures (n = 18)

Measure	Subtype	Items	Validation sample(s)	Validation religion	Internal consistency evidence	Inter-rater reliability evidence	Test-retest reliability evidence	Content validity evidence	Construct validity evidence	Validity generalization evidence
***Performance-Based Measures* (*n* = 7)**										
Stimulus attribution measures (n = 3)										
Apperception Test God Representations (Stulp et al., 2018)	All	15	St, Cl	Ch	Ad	Ad	--	Ad	Ad	Ad
Nonverbal Measure of God Concept (Bassett, Miller, Anstey, & Crafts, 1990; Bassett, Perry, Repass, Silver, & Welch, 1994)	All	15	St, Cm, Cl	Ch	--	--	--	L	L	L
Spiritual Themes And Religious Responses test (Saur, 1997; Saur & Saur, 1993)	All	11	Cm, Cl	MR-NR	--	--	--	Ad	L	L
Constructive measures (n = 4)										
God and Family Questionnaires (Rizzuto, 1979)	All	68	Cl	--	--	--	--	Ad	Ad	Ad
God Image Sentence Blank (Moriarty, 2006)	All	40	--	--	--	--	--	Ad	--	Ad
God Representation Figure Drawing Test (Moriarty, 2006; Moriarty & Davis, 2012; Olson et al., 2016)	All	Varies	St	Ch	L	L	--	Ad	L	Ad
Parent/God-Image Grids and Relationship Evaluations (Moriarty, 2006)	All	195	--	--	--	--	--	Ad	--	--
***Structured Interview Measures* (*n* = 4)**										
God Attachment Interview Schedule (Proctor, 2006; Proctor et al., 2009)	All	33	Cm	Ch	--	--	--	Ad	Ad	Ad
Religious Attachment Inventory (Granqvist & Main, 2017; Nkara et al., 2017)	All	30	St, Cm	MR	--	Gd	--	Ad	Ad	Ad
Spiritual Experiences Interview (Teal, 2006; Fujikawa, 2010)	All	30	St	--	L	L	--	L	L	L
Spiritual Narrative Questionnaire (Moradshahi, Hall, Wang, & Canada, 2017)	All	19	St	Ch	Ad	Gd	--	L	Ad	L
***Implicit Measures* (*n* = 7)**										
Property verification measures (n = 4)										
[a] (Gibson, 2006)	G	72	St, Cm	MR-NR	--	--	--	Ex	L	L
[b] (Sharp et al., 2017)	G	40	St, Cm	Ch	--	--	--	L	L	--
[c] (Yarborough, 2009)	G	81	Cm, Cl	Ch	--	--	--	Ex	Gd	Ad
[d] (Zahl, 2013)	G	42	St	MR-NR	--	--	--	Ex	Gd	Ad
Other implicit measures (n = 3)										
Implicit Association Test: God/Devil High/Low (Meier et al, 2007)	G	16	St	--	--	--	--	Gd	Ex	L
Positive/Negative God Go/No-Go Association Task (Pirutinsky et al., 2017)	G	80	Cm	J	Ad	--	Ex	L	Ex	--

Single-Target Implicit Association Test: abstraction/reality (Testoni, Visintin, Capozza, & Shams, 2016)	G	20	Cm	MR-NR	--	--	--	L	Gd	--

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